

<sup>20</sup> African Wild Life 4 (1), 1950.

<sup>21</sup> The Food of Predaceous Animals in North-eastern United States. Pennsylvania Game Commission, 1950.

<sup>22</sup> The Lammergeyer, Vol. I, No. 1, May 1960. The Journal of the Natal Parks, Game and Fish Preservation Board.

<sup>23</sup> Turnbull-Kemp, P. St. J. Wild Life of the Trout Streams. Bull. No. 2016, Rhodesia Agricul. Journal. Vol. 57, No. 2, March-April 1960.

<sup>24</sup> Gallagher, M. D. Ibis 102 (4), 1960.

## The status of *Mirafra pulpa* and *Mirafra candida*

by B. P. HALL

Received 26th January, 1961

*Mirafra pulpa* Friedmann, 1930 (April), Occ. Papers Bost. Soc. Nat. Hist. 5: 257—Sagon River (north side), southern Shoa, Abyssinia. (Here restricted to Sagon River at long. 37° 30' E. from map of expedition, Bull. U.S. Nat. Mus. 153, 1930: 7.)

*Mirafra candida* Friedmann, 1930 (July), Auk 47: 418—northern Guaso Nyrio River, River, Kenya. (Here restricted to Archer's Post from map of expedition.)

### History

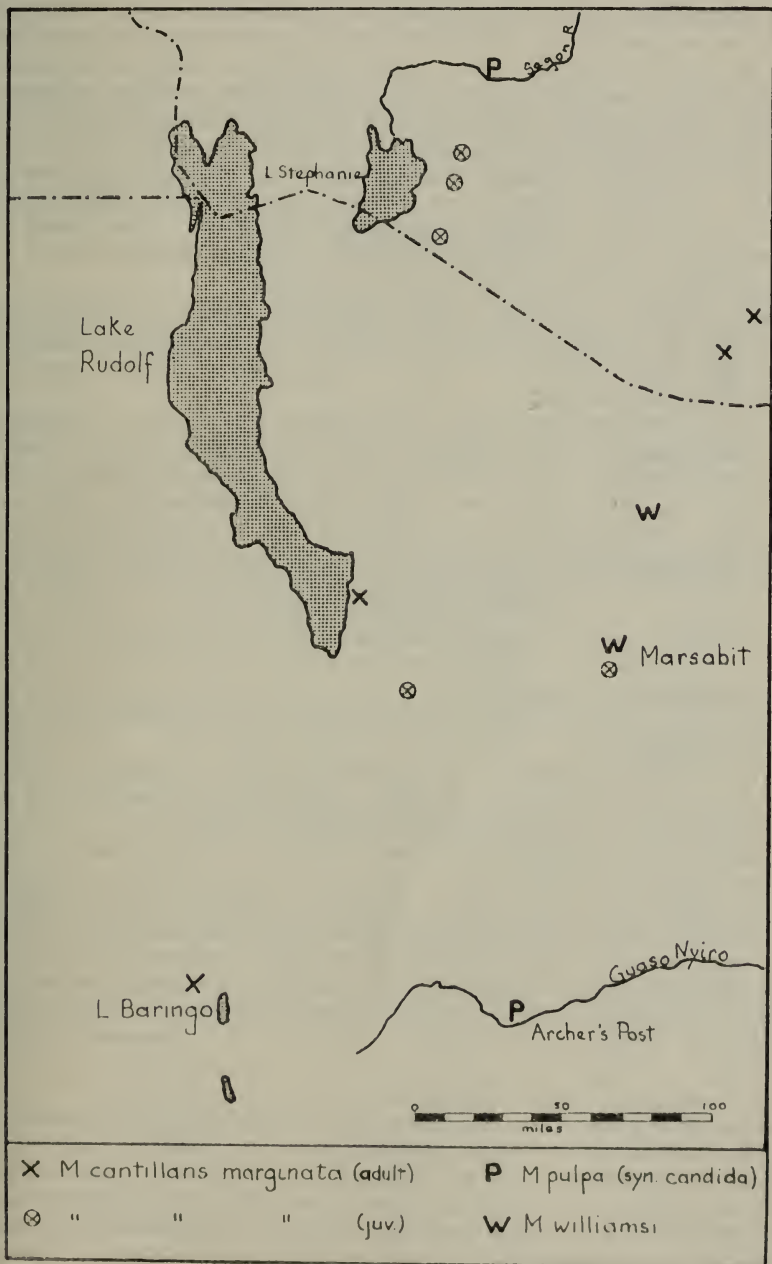
*Mirafra pulpa* was described on a single specimen collected on 19th May, and *M. candida* on one adult and two young birds collected in early August 1912, on the Childs Frick Abyssinian Expedition. *M. pulpa* was considered closest to *M. passerina* of southern Africa, a form now believed to be conspecific with *M. cantillans* by White (*Bull. Brit. Orn. Cl.* 76, 1956: 3). Friedmann compared *M. candida* with *M. cantillans marginata*, also collected on the expedition, but mentioned no comparison between *candida* and *pulpa*. Grant and Mackworth-Praed (*Bull. Brit. Orn. Cl.* 49, 1939: 157), from photographs of the type of *pulpa*, concluded it represented only a rufous phase of *M. cantillans marginata*, and both *candida* and *pulpa* were listed in the synonymy of *M. c. marginata* in the *African Handbook of Birds*, vol. 2. White (Peters in *Check List of Birds of the World*, vol. 9), left the status of both species in doubt, but subsequently (*Bull. Brit. Orn. Cl.* 80, 1960: 22), also without having access to the type, considered *pulpa* to be conspecific with *M. williamsi* Macdonald (*Bull. Brit. Orn. Cl.* 76, 1956: 71—Marsabit) and an earlier name for it.

### Material examined (see Map)

Through the kindness of Dr. Friedmann I have been able to borrow from the United States National Museum the type of *M. pulpa*, the type and one immature specimen of *candida*, an adult *M. cantillans marginata* from the south end of Lake Rudolf and young birds from the east of Lake Stephanie and the Indunamara Mts south of Lake Rudolf, all collected on the same expedition. Mr. M. A. Traylor has also kindly sent me from the Chicago Museum four young birds from Marsabit, out of a larger series collected there by Van Someren. I have compared all these in the British Museum with the type and three other specimens of *M. williamsi*, and a series of *M. c. marginata* which includes adults from Mega, Yavello and Alghe, southern Abyssinia, and the Baringo district, western Kenya.

The adults of *M. c. marginata* are alike but the young birds from the Indunamara Mts. and Marsabit are in series more sandy orange than those from further north, which is partly, but may not be wholly, due to soil-staining. Apart from this colour difference they are similar to the others and, although there is always a possibility of error

in the identification of young larks without their parents, I believe them to have been correctly identified as young of *M. cantillans*.



*Relationship of M. pulpa and M. candida*

When sending me the types of *pulpa* and *candida* Dr. Friedmann wrote that he could no longer feel certain that the two species were distinct, and after examination I also believe them to be conspecific. Some differences in colour and pattern are due to the type of *candida* being in very fresh plumage, in which moult is not quite complete: the dark tones appear rather brighter and richer than in the type of *pulpa*, and the pale edges broader, giving a more patterned effect. There is little difference in size (see Table) none in feet and claws, and the bills are similar though not identical, that of *pulpa* being a trifle more pointed and narrower across the culmen. I therefore propose that *candida* be considered a synonym of *pulpa*, and hereafter the name *pulpa* only will be used in discussing the relationship of the four specimens of *pulpa/candida* to other species.

*Relationship of M. pulpa to M. cantillans marginata*

The specimens of *M. pulpa*, both adults and young, are distinguished from all of *M. cantillans* by the rich rufous of the mantle and the edges of the wings. There are however other small differences which have not received much attention.

(a) The innermost secondaries and central rectrices of *M. pulpa* have a dark line separating the brown centres from the pale edges, giving a pattern similar to that found in *M. rufocinnamomea* but not in adult *cantillans*. Young birds of *cantillans* have an indication of this line but it is narrower and less pronounced than in young *pulpa*. Also, in fresh plumage, the head feathers of *pulpa* have wide light edges with the dark centre narrow and tapering to a point at the tip of the feather, whereas in *M. cantillans marginata* the light edges are narrower with the dark centre broad and rounded at the tip, following the contour of the feather. This makes *pulpa* appear more streaky on the head and *marginata* more scalloped.

(b) The rectrices of *pulpa* are narrower and more pointed than those of *marginata*.

(c) The bill of *pulpa*, in even the smaller of the two adults, is heavier than that of *marginata*, broader at the base and wider across the ridge of the culmen, though the lengths are similar.

(d) As White pointed out *pulpa* is longer in the wing and tail than *marginata*. (see Table).

These differences, each small, are together sufficient to make it difficult to accept that *pulpa* is either a colour phase or a subspecies of *M. cantillans*. Also the occurrence of *marginata* east of Lake Stephanie and south of Lake Rudolph suggests that *pulpa* and *marginata* are partly sympatric. I believe it is therefore best to consider *M. pulpa* as a distinct species. It may possibly be related to *M. cantillans* much as *M. hypermetra* is to *M. africana*.

*Relationship of M. pulpa to M. williamsi*

White points out the similarity in size between *pulpa* and *williamsi*: in addition *williamsi* has a similar patterning on the secondaries and central rectrices. Nevertheless I do not believe they are the same bird, nor that *pulpa* can represent an immature plumage of *williamsi*, for *williamsi* has a stronger bill, legs, feet and hind claw: the under wing-coverts are more rufous: the rectrices are similar in shape to those of *cantillans*, not narrow

as in *pulpa*: also, as far as can be judged on worn specimens, the mantle is more vinous and may be less patterned. They may also be ecologically distinct for *williamsi* is known only from Marsabit and the Didd Galgalla lava desert 36 miles to the north, while *pulpa* was collected in rather less arid country.

### Conclusions

There is reason to regard *M. pulpa* (of which *candida* is a synonym) is specifically distinct from both *M. cantillans* and *M. williamsi* and it should provisionally be regarded as such until further field study and collecting provide adequate data on which to assess both the taxonomic and ecological status of the three larks.

TABLE OF MEASUREMENTS

(where published measurements differ from mine they are given in brackets).

	Wing		Bill		Tail	
	♂	♀	♂	♀	♂	♀
<i>M. c. marginata</i> 9♂ 6♀ (Abyssinia & Kenya)	77-81	75-78	14-15	13.5-15	46-50	46-49
<i>M. williamsi</i> 3♂ 1♀	84	83	15	15	52-55 (56)	50 (54)
<i>M. pulpa</i> type	85 (84)		14.5 (14)		54 (60.5)	
type of <i>candida</i>	81 + (80) (moult)		14 (13.5)		54 (55.5)	

## A note on the Sand Crab (*Ocypode* sp.) as a predator of birds in South Africa

by DEREK M. COMINS

Received 10th March, 1961

Captain Pitman (1957, 91) refers to two "kinds of crabs which have been seen to attack young birds and pick the skeletons clean, namely racing crabs or sand crabs, two species of which, *Ocypoda cordimana* and *O. ceratophthalmus* (sic) are common on East African shores".

A specimen of a sand crab (EL. 128 ♂, *O. ceratophthalmus* (Pallas)) was collected by Miss M. Courtenay-Latimer and Mr. G. G. Smith, of the East London Museum, at about 11 a.m. on the 17th May, 1953 at Mboynte (indicated as Emboty on certain maps) near Lusikisiki on the Pondoland coast. The crab was found attempting to drag a dead female adult Cape Rock Thrush (*Monticola rupestris* (Vicillot)) into its burrow which was situated in beach sand just above high tide mark. The bird was not decomposed; it was skinned and prepared as a museum specimen that evening. The bird and crab now compose an exhibit on display at the East London Museum.

There is no proof that the sand crab had actually caught the Cape Rock Thrush. It should be noted that the Cape Rock Thrush is known to occur "right down to the seashore" at least in the southern Cape (McLachlan and Liversidge: 1957, 296) which indicates that the bird at Mboynte had not necessarily arrived *in situ* as tide drift. A well authenticated report of a sand crab having been observed to catch and kill a bird would be of great interest and worthy of publication. Barnard (1950, 87) gives the distribution of *O. ceratophthalmus* as "Mauritius, east coast of Africa to Red Sea,